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Amendments to the Claims:

- 1. (Currently Amended) An isolated DNA sequence encoding a functional eukaryotic AHAS small subunit protein, wherein said DNA sequence is not isolatable from Nicotiana plumbaginifolia or maize. hybridizes to the complement of SEQ ID NO:1 under conditions comprising:
- (a) hybridization at 42°C for 20 hours in a solution comprising 50% formamide. 2X SSC, 5X Denhardt's solution, 1% sodium dodecyl sulfate (SDS), 0.05 mg/ml denatured salmon sperm DNA, and 0.05% NaPPi;
- (b) two washes at room temperature for 10 minutes in a solution comprising 0.4X SSC and 0.1% SDS; and
- (c) one wash at 65°C for 30 minutes in a solution comprising 0.2X SSC and 0.1% SDS.
- 2. (Original) The isolated DNA sequence of claim 1 wherein said AHAS small subunit protein is a plant AHAS small subunit protein.
- 3. (Original) A plant expression vector comprising a promoter expressible in a plant cell operably linked to the DNA sequence of claim 1.
- 4. (Original) A transgenic plant whose genetic complement comprises the plant expression vector of claim 3.

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- 5. (Original) A progeny plant of the transgenic plant of claim 4, wherein said progeny plant comprises said plant expression vector.
- 6. (Original) An isolated DNA sequence encoding the amino acid sequence set forth in SEQ ID NO:2.
- 7. (Original) A plant expression vector comprising a promoter expressible in a plant cell operably linked to the DNA sequence of claim 6.
- 8. (Original) A transgenic plant whose genetic complement comprises the plant expression vector of claim 7.
- 9. (Original) A progeny plant of the transgenic plant of claim 8, wherein said progeny plant comprises said plant expression vector.
- 10. (Original) A plant expression vector comprising a promoter expressible in a plant cell operably linked to the DNA sequence set forth in SEQ ID NO:1.
- 11. (Original) A transgenic plant whose genetic complement comprises the plant expression vector of claim 10.

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- 12. (Original) A progeny plant of the transgenic plant of claim 11, wherein said progeny plant comprises said plant expression vector.
- 13. (Currently Amended) A transgenic plant whose genetic complement comprises a heterologous promoter expressible in a plant cell operably linked to a <u>an isolated</u> DNA sequence encoding a small subunit of an *Arabidopsis* AHAS protein.
- 14. (Original) A progeny plant of the transgenic plant of claim 13, wherein said progeny plant comprises said heterologous promoter operably linked to said DNA sequence.
 - 15. (Cancelled)
 - 16. (Cancelled)
 - 17. (Cancelled)
 - 18. (Cancelled)
 - 19. (Cancelled)
 - 20. (Cancelled)

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21. (Cancelled)

- 22. (New) A transgenic plant whose genetic complement comprises a plant expression vector comprising a promoter expressible in a plant cell operably linked to an isolated DNA sequence encoding an *Arabidopsis* AHAS small subunit protein.
- 23. (New) A progeny plant of the transgenic plant of claim 22, wherein said progeny plant comprises said plant expression vector.
- 24. (New) A transgenic plant whose genetic complement comprises a plant expression vector comprising a promoter expressible in a plant cell operably linked to a DNA sequence encoding an *Arabidopsis* AHAS small subunit protein, wherein said DNA sequence is selected from the group consisting of the DNA sequence set forth in SEQ ID NO: 1 and the DNA sequence set forth in SEQ ID NO: 3.
- 25. (New) A progeny plant of the transgenic plant of claim 24, wherein said progeny plant comprises said plant expression vector.